

What is claimed is:

1                   1.     An optical moisture detector for measuring ambient  
 2     light conditions comprising:  
 3                   an optical moisture sensor for sensing the presence of  
 4     moisture on a moisture collecting surface, the sensor operable to emit a  
 5     signal corresponding to sensed conditions; and  
 6                   processor means for receiving the signal, for determining an  
 7     absolute ambient light value corresponding to existing ambient light  
 8     conditions, for comparing the value to a predetermined value, and for  
 9     emitting a control signal if the value is less than the predetermined value  
 10    as a result of the comparison.

1                   2.     The optical moisture detector of claim 1 further  
 2     comprising:  
 3                   means, responsive to the control signal, for controlling a  
 4     light generating device.

1                   3.     The optical moisture detector of claim 1 further  
 2     comprising:  
 3                   timer means for disabling the processor means from  
 4     comparing the value to the predetermined value for a predetermined  
 5     period of time.

1                   4.     The optical moisture detector of claim 1 wherein the  
 2     optical moisture sensor is operably mountable with respect to a  
 3     windshield of a motor vehicle.

1                   5.     The optical moisture detector of claim 1 wherein the  
 2     optical moisture sensor is operably positionable in a spaced relationship  
 3     relative to a windshield of a motor vehicle.

1                   6.     The optical moisture detector of claim 1 wherein the  
2     optical moisture sensor further comprises:  
3                   a CCD camera for collecting data to be sent as signals to the  
4     processor means.

1                   7.     The optical moisture detector of claim 1 wherein the  
2     optical moisture sensor further comprises:  
3                   a CMOS camera for collecting data to be sent as signals to  
4     the processor means.

1                   8.     The optical moisture detector of claim 1 wherein the  
2     optical moisture sensor further comprises:  
3                   a photo array having a plurality of dark pixels and a plurality  
4     of standard pixels for collecting data to be sent as signals to the  
5     processor means.

1                   9.     The optical moisture detector of claim 1 wherein the  
2     processor means further comprises:  
3                   a microprocessor for operably receiving the signal from the  
4     sensor.

1                   10.    The optical moisture detector of claim 1 wherein the  
2     processing means compares the absolute ambient light value to a first  
3     predetermined value to determine if a signal to turn on a light generating  
4     device is to be sent, and compares the absolute ambient light value to a  
5     second predetermined value to determine if a signal to turn off the light  
6     generating device is to be sent.

1                   11. An optical moisture detector for measuring ambient  
2 light conditions comprising:

3                   an optical moisture sensor for sensing the presence of  
4 moisture on a windshield of a vehicle, the sensor operable to emit a  
5 signal corresponding to sensed conditions; and

6                   processor means for receiving the signal, for determining an  
7 absolute ambient light value corresponding to existing ambient light  
8 conditions, for comparing the value to a predetermined value, and for  
9 emitting a control signal if the value is less than the predetermined value  
10 as a result of the comparison.

1                   12. The optical moisture detector of claim 11 further  
2 comprising:

3                   means, responsive to the control signal, for controlling a  
4 light generating device.

1                   13. The optical moisture detector of claim 11 further  
2 comprising:

3                   timer means for disabling the processor means from  
4 comparing the value to the predetermined value for a predetermined  
5 period of time.

1                   14. The optical moisture detector of claim 11 wherein the  
2 processor means  
3 emits the control signal only if at least two successive comparisons  
4 indicate the value is less than the predetermined value.

1                   15. The optical moisture detector of claim of claim 11  
2 wherein the optical moisture sensor is operably mountable with respect  
3 to a windshield of a motor vehicle.

1                   16. The optical moisture detector of claim 11  
2 wherein the optical moisture sensor is operably positionable in a spaced  
3 relationship relative to a windshield of a motor vehicle.

1                   17. A method of measuring ambient light conditions  
2 comprising:  
3                   sensing the presence of moisture on a moisture collecting  
4 surface with an optical moisture sensor, the sensor operable to emit a  
5 signal corresponding to the sensed conditions;  
6                   receiving the signal and determining an absolute ambient  
7 light value corresponding to the existing ambient light conditions with  
8 processor means;  
9                   comparing the value to a predetermined value with the  
10 processor means; and  
11                  emitting a control signal with the processor means if the  
12 value is less than the predetermined value as a result of the comparing  
13 step.

1                   18. The method of claim 17 further comprising the step  
2 of:  
3                   mounting the optical moisture sensor to the windshield of a  
4 vehicle.

1                   19. The method of claim 17 further comprising the step  
2 of:  
3                   disposing the optical moisture sensor in a spatial relationship  
4 relative to the windshield of a vehicle.

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